

## Alexa-VoiceSwitch

An accessible voice activated switch using a HUZZAH32 – ESP32 Feather Board and an Amazon Echo

Github Repository: <https://github.com/milador/Alexa-VoiceSwitch>

### Components

1. HUZZAH32 – ESP32 Feather Board (1 x)
2. Amazon Echo device (1 x)
3. 3.5mm Mono Male Audio Jack (1 x)
4. Jumper wires (2 x)

### Setup Instructions

1. Setup an Adafruit IO account according to the following instructions:
  - 1.1. Create an Adafruit IO account
  - 1.2. Create an AIO KEY
  - 1.3. Copy your Adafruit IO key for later use in the code
  - 1.4. Create an Adafruit IO feed with name of your switch. I used feed name “Wheelchair” as an example.
2. Setup your HUZZAH32 – ESP32 Feather Board
  - 2.1. Download ESP32 library for Arduino IDE and install it according to the following instruction:  
<https://learn.adafruit.com/adafruit-huzzah32-esp32-feather/using-with-arduino-ide>
3. Setup IFTTT account
  - 3.1. Create an IFTTT account at <https://ifttt.com>
4. Create switch on recipe
  - 4.1. Click on the “New applet” button to create a recipe
  - 4.2. Click on the blue this block and select “Amazon Alexa” as a service
  - 4.3. Click on “Say a specific phrase” to turn on your switch
  - 4.4. Enter the method phrase to activate the switch. I used phrase “Wheelchair on” as an example
  - 4.5. Click on the blue that block and select “Adafruit” as the action service
  - 4.6. Select “Send data to Adafruit IO” block
  - 4.7. Enter “on” as the Data to save
  - 4.8. Click on “Finish” button
5. Create switch off recipe
  - 5.1. Click on the “New applet” button to create a recipe
  - 5.2. Click on the blue this block and select “Amazon Alexa” as a service

- 5.3. Click on "Say a specific phrase" to turn off your switch
- 5.4. Enter the method phrase to activate the switch. I used phrase "Wheelchair off" as an example
- 5.5. Click on the blue that block and select "Adafruit" as the action service
- 5.6. Select "Send data to Adafruit IO" block
- 5.7. Enter "off" as the Data to save
- 5.8. Click on "Finish" button
6. Setup the Alexa-VoiceSwitch.ino code
  - 6.1. Make a copy of your IO\_USERNAME and IO\_KEY from Adafruit IO account and paste them in the config.h file
  - 6.2. Replace "your\_ssid" with your WiFi's SSID and "your\_pass" with your WiFi's password in the config.h file
  - 6.3. Verify and upload Alexa-VoiceSwitch.ino code to your HUZZAH32 – ESP32 Feather Board
7. Make sure the feed data status and status of your device match. You can manually set it to on/off to match it.
8. Create a cable with a mono 3.5mm male jack on one end and 2 pin headers on the other side
  - 8.1. Connect the signal jumper to the pin number 13 on HUZZAH32 and the other one to the GND pin